

IN THE CLAIMS:

Please amend the claims as follows:

1. (Previously Presented) A humidifier having a plurality of water-permeable hollow fiber membranes placed along the lengthwise direction of a housing accommodated within the housing in which gases each having a different moisture content flow inside and outside said hollow fiber membranes to carry out moisture exchange whereby dry air having a low moisture content is humidified, said humidifier comprising:

a bypass channel, in which the gas flowing outside the hollow fiber membrane, formed on an approximately central portion of the cross-lengthwise direction of said housing along the lengthwise direction of said housing,

said bypass channel having a diameter larger than that of said hollow fiber membrane, and

an inlet placed at one end side of said bypass channel which introduces the gas flowing outside the hollow fiber membrane into the housing;

a plurality of outlets placed along the lengthwise direction of said bypass channel over the entire length of the bypass channel which discharge the gas flowing outside the hollow fiber membrane formed on said bypass channel; and

a plurality of outlet ports formed in a circumferential direction on said housing at several intervals and placed opposite said inlet beyond the bypass channel, which discharges the gas which has flowed outside the hollow fiber membrane.

2. (Previously Presented) The humidifier according to Claim 1, wherein a plurality of the outlets which discharge the gas flowing outside the hollow fiber membrane are formed on said bypass channel at several locations along the length of said bypass channel.

3. (Original) The humidifier according to claim 1, wherein an inlet port for the introduction of the gas flowing outside the hollow fiber membrane into the housing and an outlet port which discharge the gas flowing outside the hollow fiber membrane are formed on the housing, and said inlet port and said outlet port are placed opposite each other beyond the bypass channel.

4. (Original) The humidifier according to claim 2, wherein an inlet port for the introduction of the gas flowing outside the hollow fiber membrane into the housing and an outlet port which discharges the gas flowing outside the hollow fiber membrane are formed on the housing, and said inlet port and said outlet port are placed opposite each other beyond the bypass channel.

Claim 5 (Canceled)

6. (Previously Presented) The humidifier according to claim 1, wherein an inlet port which introduces the whole of the gas flowing outside the hollow fiber membrane into the housing, is provided on said bypass channel.

Claim 7 (Canceled)

8. (Currently Amended) A humidification process utilizing a hollow fiber membrane module comprising a plurality of water-permeable hollow fiber membranes placed along the lengthwise direction of a housing accommodated within the housing, in which gases each having a different moisture content flow inside and outside said hollow fiber membranes to carry out moisture exchange whereby the dry air having a low moisture content is humidified, said hollow fiber membrane module having a bypass channel with a diameter larger than that of the hollow fiber membrane formed on an approximately central portion of the cross-lengthwise direction of said housing along the lengthwise direction of said housing of said hollow fiber membrane module, and with a plurality of outlets placed along the lengthwise direction of the entire length of the bypass channel

said humidification process comprising:

introducing a part of one of said gases to flow in one end of the bypass channel, while subjecting the remaining part of the gas to directly flow in one end of outside the hollow fiber membranes;

subsequently subjecting said gas introduced into the bypass channel to flow outside the hollow membrane module from said plurality of outlets placed along the lengthwise direction of the entire length of the bypass channel, to combine said gas having been introduced into the bypass channel with the remaining part of the gas, whereby said one of the gases is spread over the outside said hollow fiber membranes accommodated within said housing, and

carrying out a moisture exchange between said gas flowing outside the hollow fiber membranes and said the gas flowing inside the hollow fiber membranes.

9. (Previously Presented) A humidification process utilizing a hollow fiber membrane module comprising a plurality of water-permeable hollow fiber membranes placed along the lengthwise direction of a housing accommodated within the housing, in which gases each having a different moisture content flow inside and outside said hollow fiber membranes to carry out moisture exchange whereby the dry air having a low moisture content is humidified, said hollow fiber membrane module having a bypass channel with a diameter larger than that of the hollow fiber membrane formed on an approximately central portion of the cross-lengthwise direction of said housing along the lengthwise direction of said housing of said hollow fiber membrane module and with a plurality of outlets placed along the lengthwise direction of the entire length of the bypass channel, and said housing having a plurality of outlet ports formed in a circumferential direction thereon,

said humidification process comprising:

introducing a whole of one of said gasses into the bypass channel from one end of said bypass channel;

subsequently subjecting said gas introduced into the bypass channel to flow outside the hollow membrane module from said plurality of outlets placed along the lengthwise direction of the entire length of the bypass channel to be spread over the whole of outside said hollow fiber membranes,

discharging said one of gasses spread outside said hollow fiber membranes from said plurality of outlet ports formed in a circumferential direction thereon; and

carrying out a moisture exchange between said gas flowing outside the hollow fiber membranes and the gas flowing inside the hollow fiber membranes.